

Docket No.: M4065.0295/P295-C
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Howard E. Rhodes

Application No.: Not Yet Assigned

Filed: February 27, 2004

Art Unit: N/A

For: MULTI-TRENCH REGION FOR
ACCUMULATION OF PHOTO-
GENERATED CHARGE IN A CMOS
IMAGER

Examiner: Not Yet Assigned

INFORMATION DISCLOSURE STATEMENT (IDS)

MS Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement accompanies the new patent application submitted herewith.

A copy of each reference on the PTO/SB/08 is attached.

Those patent(s) or publication(s) which are marked with a double asterisk (**) in the attached form PTO/SB/08 (facsimile) are not supplied because they were

previously cited by or submitted to the Office in a prior application number 09/650,432, filed August 28, 2000 and relied upon in this application for an earlier filing date under 35 U.S.C. 120.

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 04-1073, under Order No. M4065.0295/P295-C. A duplicate copy of this paper is enclosed.

Dated: February 27, 2004

Respectfully submitted,

By 

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				Howard E. RHODES			
				Filing Date		Group Art Unit	
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U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL	REF	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		4,374,700	02/1983	SCOTT et al.**			
		5,055,900	10/1991	FOSSUM et al.**			
		5,151,385	09/1992	YAMAMOTO et al.**			
		5,173,756	12/1992	WONG et al.**			
		5,319,604	06/1994	IMONDI et al.**			
		5,461,425	10/1995	FOWLER et al.**			
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		5,990,515	11/1999	LIU et al.**			
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		6,008,103	12/1999	HOEPFNER**			
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	REF	DOCUMENT	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
							YES NO
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
		Dickinson, A., et al., <u>A 256x256 CMOS Active Pixel Image Sensor with Motion Detection</u> , 1995 IEEE International Solid-State Circuits Conference, pps. 226-227.**					
		Dickinson, A., et al., <u>Standard CMOS Active Pixel Image Sensors for Multimedia Applications</u> , Proceedings of Sixteenth Conference on Advanced Research in VLSI, March 27-29, 1995, pps. 214-224.**					
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		Fossum, E., <u>CMOS Image Sensors: Electronic Camera On A Chip</u> , 1995 IEEE, pps. 17-25.**					

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		Fossum, E., <u>Low Power Camera-on-a-Chip Using CMOS Active Pixel Sensor Technology</u> , 1995 IEEE, pps. 74-77.**						
		Fossum, E., <u>Architectures for focal plane image processing</u> , Optical Engineering, Vol. 28, No 8, August 1989, pps. 865-871.**						
		Janesick, J., et al., <u>New advancements in charge-coupled device technology - sub-electron noise and 4096x4096 pixel CCDs</u> , Proc. SPIE Vol. 1242, 1990, pps. 223-237.**						
		Kemeny, S.E., et al., <u>Update on focal-plane image processing research</u> , Proc. SPIE Vol. 1447, 1991, pps. 243-250.**						
		Mendis, S., et al., <u>CMOS Active Pixel Image Sensor</u> , IEEE Transactions on Electron Devices, Vol. 41, No. 3, March 1994, pps. 452-453.**						
		Mendis, S.K., et al., <u>A 128 x 128 CMOS Active Pixel Image Sensor for Highly Integrated Imaging Systems</u> , 1993 IEEE, pps. 583-586.**						
		Mendis, S.K., et al., <u>CMOS Active Pixel Image Sensors for Highly Integrated Imaging Systems</u> , IEEE Journal of Solid-State Circuits, Vol. 32, No. 2, February 1997, pps. 187-197.**						
		Mendis, S.K., et al., <u>Design of a Low-Light-Level Image Sensor with On-Chip Sigma-Delta Analog-to-Digital Conversion</u> , Proc. SPIE Vol. 1900, July 1993, pps. 31-39.**						
		Mendis, S.K., et al., <u>Low-Light-Level Image Sensor with On-Chip Signal Processing</u> , Proc. SPIE Vol. 1952, November 1993, pps. 23-33.**						
		Mendis, S.K., et al., <u>Progress In CMOS Active Pixel Image Sensors</u> , Proc. SPIE Vol. 2172, May 1994, pps. 19-29.**						
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		Nixon, R.H., et al., <u>256 x 256 CMOS Active Pixel Sensor Camera-on-a-Chip</u> , IEEE Journal of Solid-State Circuits, Vol. 31, No. 12, December 1996, pps. 2046-2050.**							
		Nixon, R.H., et al., <u>256x256 CMOS Active Pixel Sensor Camera-on-a-Chip</u> , 1996 IEEE International Solid-State Circuits Conference, pps. 178-179.**							
		Panicacci, R., et al., <u>Programmable multiresolution CMOS active pixel sensor</u> , Proc. SPIE Vol. 2654, March 1996, pps. 72-79.**							
		Panicacci, R.A., et al., <u>128Mb/s Multiport CMOS Binary Active-Pixel Image Sensor</u> , 1996 IEEE International Solid-State Circuit Conference, pps. 100-101.**							
		Yadid-Pecht, O., et al., <u>CMOS Active Pixel Sensor Star Tracker with Regional Electronic Shutter</u> , IEEE Journal of Solid-State Circuits, Vol. 32, No. 2, February 1997, pps. 285-288.**							
		Yadid-Pecht, O., et al., <u>Wide dynamic range APS star tracker</u> , Proc. SPIE Vol. 2654, March 1996, pps. 82-92.**							
		Zarnowski, J., et al., <u>Imaging options expand with CMOS technology</u> , Laser Focus World, June 1997, pps. 125-130.**							
		Zhou, Z., et al., <u>A Cmos Imager with On-Chip Variable Resolution for Light-Adaptive Imaging</u> , 1998 IEEE International Solid-State Circuits Conference, pps. 174-175.**							
		Zhou, Z., et al., <u>A Digital CMOS Active Pixel Image Sensor For Multimedia Applications</u> , Proc. SPIE Vol. 2894, September 1996, pps. 282-288.**							
		Fossum, E., et al., <u>IEDM A 37x28mm² 600k-Pixel CMOS APS Dental X-Ray Camera-on-a-Chip with Self-Triggered Readout</u> , 1998 IEEE International Solid-State Circuits Conference, pps. 172-173.**							
EXAMINER				DATE CONSIDERED					
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.									